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PIONEERS IN NEUROLOGY

Félix Vicq d'Azyr (1748–1794)

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Vicq d'Azyr was a typical exponent of the Enlightenment: physician, anatomist, medical historian and social reformer [1–3]. Born in Valognes (Normandy) as the son of a local physician, he went to Paris to study medicine in 1765. Influential teachers were the anatomist Antoine Petit (1722–1794) and the naturalist Louis Daubenton (1716–1800). Soon after graduation in 1772, he started giving anatomy lessons himself, both public and private, but in the next year he fell ill with haemoptysis, presumably from tuberculosis. He went back to Normandy to regain his health, meanwhile studying the anatomy and physiology of fish. Having recovered, he studied birds and quadrupeds, all of which earned him admission to the 'Académie des Sciences' in 1774, the same year in which he obtained his doctorate.

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Around the same time the 'Académie des Sciences' was approached by Turgot, finance minister of King Louis XVI, about a severe epidemic in cattle that was raging in the southern provinces (probably cattle plague, in retrospect) [4]. Vicq d'Azyr was dispatched; he isolated affected farms, organised disinfection of stables and leather from those areas, and—most controversial—ordered mass slaughtering of affected animals. Also he seized the opportunity to extend his anatomical and physiological studies to these large quadrupeds. The epidemic came to an end in 1776; Vicq d'Azyr soon published an extensive report [5]. Meanwhile he had resumed his anatomy lessons in Paris, prompted by Petit. His teacher hoped that Vicq d'Azyr would succeed him after his retirement in 1778, but instead the appointment went to Antoine Portal (1742–1832). Having married in 1779, within the next 2 years he lost his wife (from tuberculosis) as well as their child. In 1780 he became professor of comparative anatomy at the veterinary school in Alfort, a post he would hold for the next 8 years and one that offered him the opportunity to start his magnum opus, the Traité d'anatomie et de physiologie [6].

His aim was to present a 'grand tableau' of all living creatures—not in an exhaustive manner, but with sufficient examples from different species to show the overall design of nature, culminating in man. Eventually he would accomplish only a single volume, about the anatomy of the brain, but it is a weighty tome that constitutes a monumental piece of work in itself [6]. It is dedicated to King Louis XVI, with an allegorical frontispiece instead of the author's portrait (as was often the case in the previous century). In the general introduction Vicq d'Azyr emphasizes the importance of integrating anatomy and physiology—form cannot be studied without some understanding of function, and vice versa. Observing changes in tissues

caused by disease is also important, he writes, but conclusions are difficult because in life the pain is often far removed from the organ in question. Another introductory chapter follows, in which he gives an outline of comparative anatomy and an extensive anatomical glossary, through which he aimed to establish a new, purely descriptive terminology, unburdened by history, qualitative terms or preconceived ideas.

The main substance of the book, brain anatomy, consists of five parts, each containing six to eight sections of the brain or parts of it, coloured by means of aquatint. Each plate is accompanied by an explanatory drawing of the same size. Most sections are more or less in the axial plane, though some look definitely unfamiliar. The drawings were made by Briceau, who is thanked by the author for his skills, stamina, and endurance of foul odours. Probably alcoholic solutions were used to harden the brain; it was only a little later that this method became standard, through the work of Reil (1759–1813) [7]. In each of the five parts the plates are preceded by detailed explanations of every section and followed by an 'historical reflection', with comments on the work of previous anatomists (Bidloo, Vieussens, Eustachius, Willis, Monro, Haller, and many others). Often Vicq d'Azyr chides them for inaccuracy of their illustrations or descriptions; even the great Vesalius is not spared. In one instance he copies an illustration he cannot improve upon (Soemmering's view of the base of the brain). Vicq d′Azyr was the first to describe not only the mamillothalamic tract, now named after him, but also the substantia nigra.

From 1776 onwards Vicq d'Azyr had also been politically active. He was instrumental in establishing the 'Société royale de médecine', a body he subsequently served as permanent secretary. The purpose of the society was to create regular correspondence with physicians throughout the country, not only to provide them with abstracts from recently published work, but also to obtain information about epidemics (illness in the population meant smaller crops and thus fewer revenues from taxes). Among the duties of the secretary was the writing of eulogies for deceased members, a task which Vicq d'Azyr performed with flourish. In 1788 he was elected into the 'Academie Francaise', the highest scientific honour in the country. A year later he succeeded Lassone as first physician of Queen Marie Antoinette.

Just as Vicq d'Azyr had reached the peak of his career, the revolution broke out [8]. He took an active part in direly needed reforms of medical education, but his old institutions were gradually dissolved and he spent the last year of his life as military physician and superintendent of the anatomical collection that had belonged to the count of Orléans. He escaped the Terror, unlike some of his friends like Lavoisier, but he fell ill once more in June 1794 and passed away a fortnight later.

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